

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Ma, et al.	
Application No.: 10/771,589	Group Art Unit: 1714
Filed: 2/3/2004	Examiner: Peter A. Szekeley
Title: Polycarbonate Compositions with Thin-Wall Flame Retardance	Confirmation No: 3810
Attorney Docket No.: GEPL.P-085	

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RESPONSE TO FINAL REJECTION

Dear Sir:

This is in response to the Office Action mailed December 1, 2006 for the above-captioned application. Reconsideration and further examination are respectfully requested.

The Examiner has maintained the rejection of claims 1-28, 39-62, 73, 76-81 under 35 USC § 102(b) as anticipated by Mitsuta (2002/0193476). In order for a reference to be anticipatory, it must disclose the invention as claimed. As previously observed, no composition in Mitsuta meets the limitations of claim 1, because no composition makes the choice of a PC-siloxane polymer, and the choice of the specified mineral filler and the choice of a phosphate flame retardant from among the options presented.

The Examiner states that "the reference does not disclose phosphates as the only flame retardants as required by claims 77, 78, 80 and 81." This is an admission that these claims are not anticipated, yet the rejection of these claims under § 102 is maintained. Since the reference clearly does not disclose each and every limitations of these claims, this rejection is improper.

Since all of the claims in this application include at least one of these limitations, the rejection of the claims as anticipated by Mitsuta is plainly in error and should be withdrawn

Appln No.: 10/771,589
Amendment Dated: January 31, 2007
Reply to Office Action of December 1, 2006

The Examiner also rejected claims 1-28, 39-62 and 73-81 as obvious over Mitsuta. The Examiner has not, however, directly addressed the requirements for an obviousness rejection. In particular, he has not explained why a person skilled in the art would make the modifications to Mitsuta necessary to arrive at the invention with the limitations not specifically found in the reference. Further, he has not commented in any way on the declaration evidence. This is plainly improper, since obviousness must be determined in light of all of the evidence available. The case therefore is not ready for an appeal because no meaningful argument can be presented against a position that has never been explained.

As previously explained, the present invention embodies a special combination of components that produce unexpected results. From the examples in the specification and the declaration previously filed, the following observations can be made:

- (1) addition of a mineral filler to a composition without the PC-siloxane increases flex modulus, but significantly lowers the impact strength. No significant change in flame retardance is observed. (Comp Ex 2-4 versus Comp Ex. 1)
- (2) addition of PC-siloxane to a composition containing mineral filler and phosphate flame retardant increases the flame retardance of a composition and improves the impact strength without degradation of flex modulus. (Ex 1 and 4 vs Comp Ex. 2; Ex 3 vs Comp Ex. 4)
- (3) addition of PC-siloxane without mineral filler does not change the flame retardance, although the impact strength improves. (Comp Ex. 5 vs Comp Ex. 1)
- (4) addition of a different flame retardant does not produce the same increase in flame retardance. (Comp Ex. 6-8).
- (5) the high flex modulus that is achieved in the compositions of the invention is not achieved in compositions that use the methyl phenyl silicone flame retardant. (Ex. 1 vs. Comp Ex 6, Ex. 3 vs. Comp Ex. 8).

From this, it can be seen that the compositions of the invention provide a desirable combination of flex modulus, impact strength and flame retardance that is a consequence of the combination of recited materials, and which is not achieved using just some of the claimed components.

Mitsuta treats flame retardants as interchangeable, and does not recognize or suggest that the choice of flame retardant may have an effect on properties other than flame performance. Thus, the present invention is not obvious over the Mitsuta reference.

Appln No.: 10/771,589

Amendment Dated: January 31, 2007

Reply to Office Action of December 1, 2006

The Examiner also rejected claims 1-28, 39-62, 73 and 76-81 as anticipated by Venderbosch 2006/0014919. Applicants respectfully point out that this reference can only be relied upon to the extent that the disclosure that the examiner seeks to rely upon appears in the provisional application, because the application as published was filed too late to be a reference. Looking at the provisional application, none of the actual examples include a filler. Example 18 (Page 33) includes a phosphate based flame retardant, but no filler. Fillers are disclosed in ¶ 0079-80 as an optional additive. However, the list includes numerous fillers in addition to those specifically recited in the present claims. Accordingly, one would have to make selections in order to arrive at the compositions of present invention. Furthermore, the provisional application shows no examples in accordance with the invention with a siloxane content of less than 4.5 %. This is not within the range of 1 to 4% (claims 4, 13, 18, 45, and 56). Comparative examples 2-4 contain lesser amounts of siloxane, but are do not contain filler, or flame retardant and are shown to be unsuitable for the purposes of the invention of the Venderbosch disclosure (High haze in Table 3).

Further, it is noted that Compositions 10 and 11 in the Venderbosch provisional both failed to achieve a V0 rating at 1.2 mm (actually a V2 rating, Table 4). These compositions lack the mineral filler as set forth in the present claims. This stands as a further example that the presence of the mineral filler treated as **optional** in the reference is a contributing factor to the properties of the present compositions.

Thus, there is no guidance in the specification which would lead the person skilled in the art to make the selections necessary for the present compositions, and therefore there is no basis for an anticipation rejection.

The Examiner also rejected claims 1-28, 39-62 and 73-81 as obvious over Venderbosch. Because this reference is available only under 35 USC § 102 (e), the provisions of 35 USC § 103(c) apply. The present application and the Venderbosch application are commonly assigned to General Electric Company and were subject to an obligation of assignment to General Electric Company at the time the inventions were made. Thus, this reference may not be cited in a § 103 rejection.

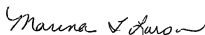
Appln No.: 10/771,589

Amendment Dated: January 31, 2007

Reply to Office Action of December 1, 2006

For these reasons, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully submitted,

A handwritten signature in cursive script, reading "Marina T. Larson", is positioned above a horizontal line.

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